

IN THE CLAIMS

Claims 1-30 (canceled)

31. (currently amended) A process comprising adding inorganic solids to a hydrocarbon-containing plastic and introducing the resulting mixture into a liquid melt, wherein 90% of the inorganic solid have particle sizes of from 0.01 μ m to 5 mm.

32. (currently amended) A process according to claim 31, wherein 90% of the inorganic solid have particle sizes of ~~from 0.01 μ m to 5 mm.~~

33. (previously presented) A process according to claim 32, wherein 90% of the inorganic solid have particle sizes of from 0.1 μ m to 2 mm.

34. (previously presented) A process according to claim 31, wherein the proportion of inorganic solids in the plastic is 0.5 to 90 wt.%.

35. (previously presented) A process according to claim 34, wherein the proportion of inorganic solids in the plastic is from 2 to 70 wt.%.

36. (previously presented) A process according to claim 31, wherein the inorganic solids are at least one solid selected from the group consisting of a titanium-containing substance, iron oxide, aluminum oxide, magnesium oxide, calcium oxide, a silicate, and a slag forming additive.

37. (previously presented) A process according to claim 36, wherein the inorganic solids contain synthetic titanium dioxide.

38. (previously presented) A process according to claim 31, wherein the plastic comprises nitrogen.

39. (currently amended) A process according to claim 31, wherein the plastic used is recycled old plastic.

40. (previously presented) A process according to claim 31, wherein the plastic is mixed in solid form with the inorganic solids.

41. (previously presented) A process according to claim 31, wherein the plastic is mixed in molten form with the inorganic solids.

42. (previously presented) A process according to claim 41, further comprising cooling the mixture until the mixture solidifies to form a solidified plastic/flux mixture.

43. (previously presented) A process according to claim 42, wherein the solidified plastic/flux mixture is ground or shredded.

44. (previously presented) A process according to claim 31, wherein the plastic/flux mixture is introduced into the liquid melts by injection.

45. (previously presented) A process according to claim 31, wherein the plastic/flux mixture is introduced into the liquid melts in the form of lumps.

46. (previously presented) A process comprising mixing solid plastic with inorganic solids so that the inorganic solids adhere to the plastic surface to form a mixture, and the mixture is added to a liquid melt.

47. (previously presented) The method according to claim 46, wherein the plastic is in the form of a granule, matrix agglomerate or pot agglomerate.

48. (previously presented) The method according to claim 46, wherein the plastic is in the form of a plastic granule and the inorganic solids are added to the plastic during formation of said granules.

49. (new) A process comprising:

mixing synthetic titanium dioxide with at least one inorganic solid selected from the group consisting of iron oxide, aluminum oxide, magnesium oxide, calcium oxide, a silicate, and a slag forming additive to form an inorganic mixture; and

adding the inorganic mixture to a hot liquid melt of a hydrocarbon-containing plastic.

50. (new) A process according to claim 49, wherein the inorganic mixture is introduced into the hot liquid melt in divided form.

51. (new) A process according to claim 49, wherein the plastic is of a composition that contributes to the formation of at least one of titanium carbide, titanium nitride and titanium carbonitrides.

52. (new) A process according to claim 49, wherein the plastic comprises nitrogen.

53. (new) A process according to claim 52, wherein said plastic forms titanium nitride, titanium carbonitride or both by reaction with the titanium from the synthetic titanium dioxide.

54. (new) A process comprising:

mixing particulate synthetic titanium dioxide with inorganic solid particles selected from the group consisting of iron oxide, aluminum oxide, magnesium oxide, calcium oxide, a silicate, and a slag forming additive to form a particulate inorganic mixture; and

mixing the particulate inorganic mixture with solid plastic granules which have a surface such that the inorganic particulates adhere onto the surface of the solid plastic granules to form a granulate plastic flux mixture.

55. (new) A process according to claim 54, wherein the granulate plastic flux mixture is ground or shredded.

56. (new) A process according to claim 54, wherein the granulate plastic flux mixture is added to a hot liquid melt that comprises plastic.